

WQB "Wide Aperture Quad" for Main Injector

26 May 2005, 9:00 AM

IB2 conference room

Attendees: Linda Alsip, Weiren Chou, TJ Gardner, Camille Ginsburg, Henry Glass, Dave Harding, Jim Jablonski, Vladimir Kashikhin, Ioanis Kourbanis, Bill Robotham

Design

Linda Alsip provided color charts from the Rustoleum Industrial Finishes collection. "Safety Red" was the color of choice. Linda will purchase one gallon (enough for ~two magnets) which we will review.

The manifold and bus design is nearing completion. PEEK insulators will be used with Swagelok fittings. Detail drawings will be released ahead of the assembly drawing to provide procurement time.

The Alignment Group reviewed the magnet and concluded the use of (8) survey pads per magnet. The two on the top and both sides will be located at the same position as the magnet supports, while the two on the bottom are placed outside of those supports.

Beam tubes

As the beam tubes need to be cut to length, an end piece will be swaged and placed on a quarter core and coil assembly as an experiment to review access to the removable pole piece.

Fabrication

The second pair of coils were successfully potted. Cores and coils are being processed, with one coil and core being fit together. Core stacking resumed ahead of schedule (5/18 v. 5/23) following the successful handling exercise of mounting all four cores in the rollover/assembly fixture.

Schedule

The activities scheduled for the past two weeks are on schedule. Work will continue with the intent of completing the first unit by 6/29/05. Magnet measurements continue through 7/29/05.

A logic error was detected in the final assembly of WQB002. Correcting this error now places completion of 002 to testing 7/27/05, 004 to testing 9/15/05 and 007 to testing 11/17/05.

Measurement and refinement plan

Hank Glass confirmed that MTF has a plan for testing these magnets concentrating on the end field first. It is understood that a few iterations are needed to test, machine pole pieces and retest. The fixturing is nearing completion. It was agreed that an old IQB would be tested first to compare the WQB measurements against.

Next meeting in two weeks: Thursday, 09 June 2005. 9:00 AM, IB2 Conference Room